of the present invention. The low background of the diffraction diagram indicates that the boron nitride powder is pure and well crystallized monophase crystalline t-BN. That is to say, in the diffraction diagrams of FIG. 2 and FIG. 7, there is no diffraction peaks attributed to that of B_2O_3.

It should be noted that modification obvious in the art may be done without departing the gist and scope of the present invention as disclosed herein and claimed herein below as appended.

What is claimed is:

1. A method for producing a crystalline turbostratic boron nitride, comprising:

providing a mixture of a substantially amorphous boron nitride and an alkali-borate fluxing agent, and

crystallizing said amorphous boron nitride to said crystalline turbostratic boron nitride in the presence of an effective amount of said alkali-borate fluxing agent in a non-oxidizing atmosphere comprising an atmosphere within a vessel of a closed or quasi-closed state.

2. The method of claim 1, wherein said crystallizing is carried out by heating said mixture at a temperature of about 1500° C. or below for a time period until said amorphous boron nitride is substantially crystallized to said crystalline turbostratic boron nitride.

3. The method of claim 1, wherein said crystallizing is carried out at a temperature from 1200° C. to 1400° C.

4. The method of claim 1, wherein said alkali-borate comprises sodium borate and/or hydrate thereof.

5. The method of claim 1, wherein said alkali-borate in said mixture ranges from 0.01% to 20% by weight.

6. The method of claim 1, further comprising:

purifying the crystalline turbostratic boron nitride by washing with an aqueous cleaning liquid to remove impurities after forming the crystalline turbostratic boron nitride.

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